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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,720	01/16/2004	Richard J. Kapusniak	87005CPK	6554

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EXAMINER

SCHWARTZ, PAMELA R

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/758,720

Applicant(s)

KAPUSNIAK ET AL.

Examiner

Pamela R. Schwartz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-19 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/8/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-18, drawn to an ink jet recording element, classified in class 428, subclass 32.1.
  - II. Claim 19, drawn to a recording method, classified in class 347, subclass 105.

The inventions are distinct, each from the other because of the following reasons:

Inventions of Group I and of Group II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product can be used in a materially different method such as a method of writing with an ink pen. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Konkol on April 15, 2005 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-18. Affirmation of this election must be made by applicant in replying to this Office action. Claim 19 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one

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or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/705057. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application is directed to an ink jet recording element having aluminosilicate in an ink receiving layer and the related application is directed to an ink jet recording element having aluminosilicate in an overcoat layer. Since an overcoat layer may be an ink receiving layer, the instant application is obvious over the related application. In addition, it would have been obvious to one of ordinary skill in the art to include mordant in any or all ink receptive layers of a medium for its well-known purpose in the art of dye fixation.

3. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of copending Application No. 10/759,896. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application is directed to an ink jet recording element having aluminosilicate in an ink receiving layer and the related application is directed to an ink jet recording element having aluminosilicate in a subbing layer. Since a subbing layer may be an ink receiving layer, the instant application is obvious over the related application. In addition, it would have been obvious to one of ordinary skill in the art to include mordant in any or all ink receptive layers of a medium for its well-known purpose in the art, including a subbing layer.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Claims 1-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of copending Application No. 10/759,876. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application is directed to an ink jet recording element having aluminosilicate in an ink receiving layer including mordant and the related application is directed to an ink jet recording element having aluminosilicate with a specific proportion of the aluminosilicate specified in claim

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1 but no recited mordant. It would have been obvious to one of ordinary skill in this art to include mordant in any layer in order to fix dye in that layer.

5. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. If the formula of the aluminosilicate is correctly set forth in claim 11, it is unclear how this structure may comprise organic groups as set forth in claim 12. Claim 12 appears to be inconsistent with the claim from which it depends.

7. Claims 1-8 and 10-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al. (6,548,149) in view of Ohashi et al. (6,254,845). The primary reference discloses an ink jet recording material comprising an ink receiving layer on a substrate, the ink receiving layer comprising binder and pigments particles which may be an aluminosilicate (see col. 6, lines 18-29). The particles have an amorphous structure and may be produced by subjecting a mixture containing aluminum alkoxide and silica alkoxide to hydrolysis. The particles have a ratio of alumina to silica of 1:4 to 4:1, a primary particle size of 3 to 40 nm, and a secondary particle size of 10 to 300 nm (see col. 9, line 44 to col. 10, line 45). The binder may be polyvinyl alcohol (see col. 10, lines 46-56). The ratio of binder to pigment is 10:2 to 10:6 (col. 11, lines 6-10). This is consistent with the instant limitations directed to the quantities of binder and pigment

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which may be present as recited by applicants' claims. The layer may contain a cationic resin to fix ink. The resin may contain quaternary ammonium groups (col. 11, lines 38-53). The recording material may comprise at least one additional ink receiving layer which may be between the previously described layer and the support (see col. 15, lines 15-25). However, the additional layer is not limited to this position and could form an outermost layer.

Ohashi et al. disclose spherical hollow aluminosilicate which appears to meet all of the limitations to be the aluminosilicate of the primary reference as well as all of the limitations to be the aluminosilicate as instantly claimed including the X-ray diffraction pattern. This method of formation is described as highly efficient and homogeneous, and yields desirable properties such as excellent water resistance and high specific surface area. The uses specifically disclosed by the reference include adsorbent, humidity adjustor, drug microcapsule and catalyst carrier (col. 1, lines 5-15 and the abstract). While the secondary reference doesn't mention use in ink receptive layers, it is well known in the ink jet recording art that inorganic oxides that are used as catalyst carriers are generally useful in the ink jet recording field as well (see for example, Greenwood et al. (6,596,250, col. 1, lines 14-19) and Watanabe et al. (6,632,489, col. 1, lines 19-21). Therefore, with respect to selection of a specific aluminosilicate pigment, it would have been obvious to one of ordinary skill in the ink jet recording art to look to the field of inorganic pigments used in a variety of uses, including as catalyst carriers, for a particular material. Since the material of the secondary reference meets all requirements of size and composition set forth by the primary reference and is disclosed

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as having a high specific surface area, a desired property of particles in ink receptive coatings, it would have been obvious to one of ordinary skill in the art to include the particular aluminosilicate of the secondary reference as the aluminosilicate of the primary reference.

While neither of the references set forth that the aluminosilicate comprises organic groups, when combined with a charged material such as the polymeric mordant, organic groups from the mordant will react with the aluminosilicate particles at some locations. Since the aluminosilicate is synthesized there should inherently be no iron atoms present.

8. Claims 1, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al. (6,548,149) in view of Ohashi et al. (6,254,845) as applied to claims 1-8 and 10-18 above, and further in view of Sunderrajan et al. (6447114). Sunderrajan et al. teach mordants consistent with instant claim 9 for inclusion in ink jet recording elements are well known in the art (see col. 3, lines 15-31). Since the primary reference disclosed inclusion of cationic ink fixing agents, it would have been obvious to one of ordinary skill in the art to include such an agent from those conventional and well known in the art for its concomitant function therein.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela Schwartz whose telephone number is (571) 272-1528.

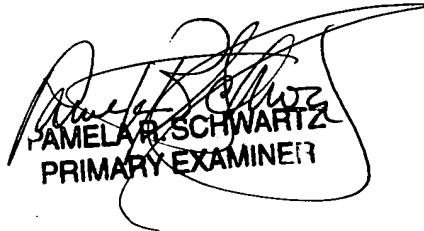


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRSchwartz  
May 16, 2005



PAMELA SCHWARTZ  
PRIMARY EXAMINER